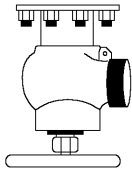
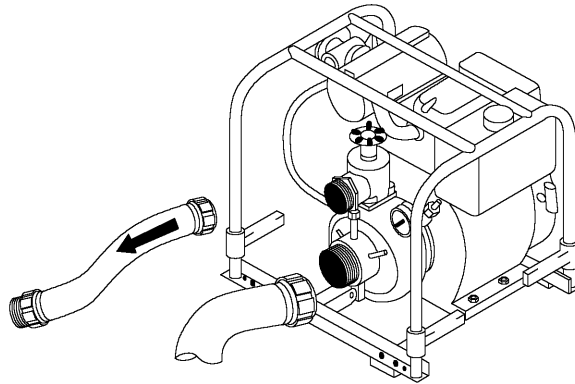


**DAMAGE CONTROL LAYOUT SKETCHES**  
**SECTION 4 - DEWATERING EVOLUTION**

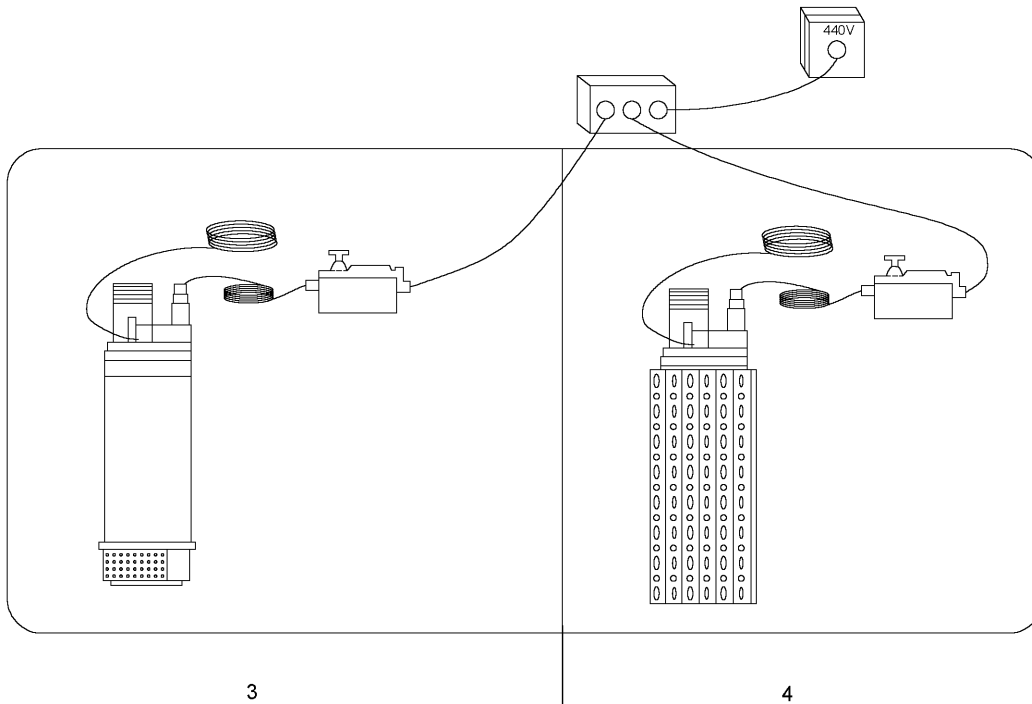
<b>SKETCH NO.</b>	<b>TITLE OF SKETCH</b>	<b>SHEET NO.</b>
001	Dewatering Equipment (Sheet 1 of 3)	4-2
	Dewatering Equipment (Sheet 2 of 3)	4-3
	Dewatering Equipment (Sheet 3 of 3)	4-4
002	Using 1-1/2" Eductor with or without Strainer	4-5
003	Using 2-1/2" Eductor or Peri Jet with or without Foot Valve Actuating from 2-1/2" Fireplug or P100 Pump	4-6
004	Suction Lifts Under 20 Feet	4-7
005	Using 1-1/2" Eductor and Peri Jet Eductor for Lifts Over 20 Feet	4-8
006	Using P-100 Pump and Eductor Pumping Contaminated Space	4-9
007	Using 1-1/2" Eductor Connected to a Standpipe	4-10
008	Using Peri Jet Eductor and 1-1/2" Fireplug	4-11
009	Using P-100 to Actuate Both the 1-1/2" Eductor and the Foot Valve Strainer for 10 Ft. Suction Lift	4-12
010	Using Both Peri Jet Eductor or 1-1/2" Eductor	4-13
011	Using Peri Jet Eductor Supplied by 2-1/2" and 1-1/2" or 1-3/4" Hoses (Increased Capacity 20% or More)	4-14
012	20 Foot-Plus Suction Lift Using Three P-100 Pumps in Tandem	4-15
013	Using P-100 Pump and 1-1/2" Eductor	4-16
014	Using Submersible Pumps Single or in Tandem- More than 50 Ft. Suction Lift	4-17
015	Using Submersible Pump - Up to 50 Ft. Suction Lift	4-18
016	Using Submersible Pump to Provide Actuating Water to Peri Jet Eductor	4-19
017	Electric Submersible Pump Discharge Actuating One or Two 1-1/2" S-Type Eductors and Corresponding Ram Fans	4-20
018	1-1/2" S-Type Eductor Providing Actuating Water to Two Water Driven Ram Fans for Cooling/Desmoking	4-21
019	Dewatering Compartments Using Two P-100 Pumps in Tandem Actuating Eductor in Adjacent Space (Sheet 1 of 2)	4-22
	Dewatering Compartments Using Two P-100 Pumps in Tandem Actuating Eductor in Adjacent Space (Sheet 2 of 2)	4-23



1



2

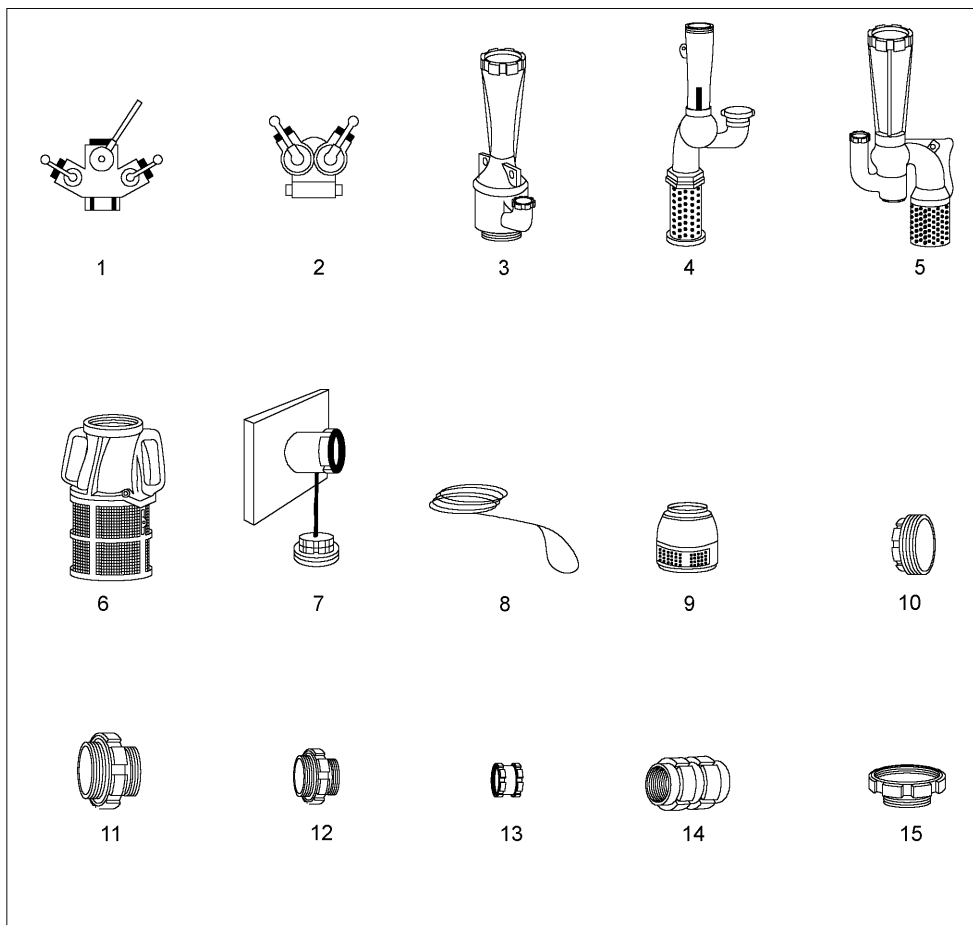


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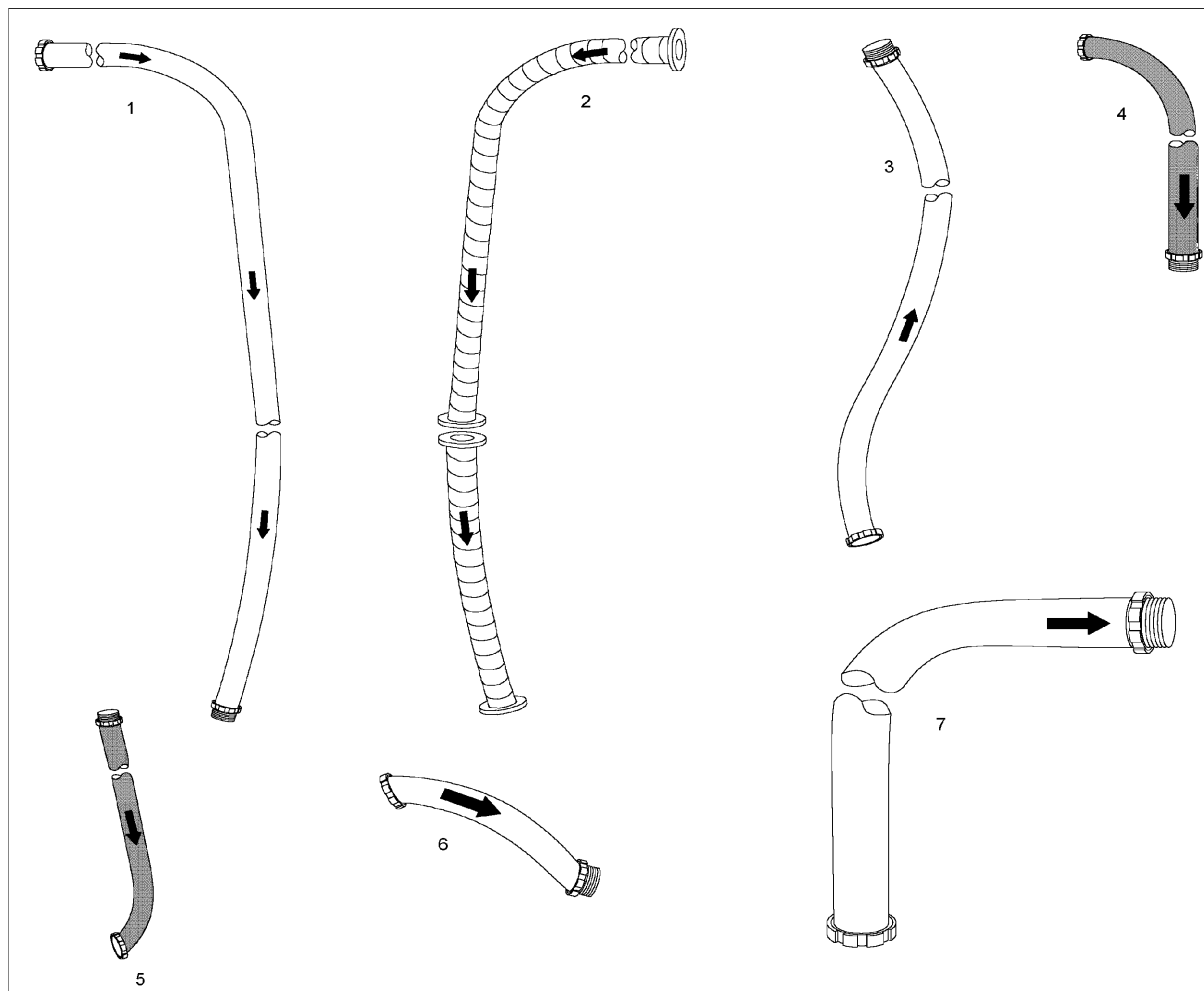
ITEM	EQUIPMENT
1	FIREPLUG
2	P-100 PUMP
3	SUBMERSIBLE PUMP W/O STRAINER
4	SUBMERSIBLE PUMP WITH STRAINER

**DEWATERING EVOLUTION - SKETCH #001**  
**Dewatering Equipment (Sheet 1 of 3)**



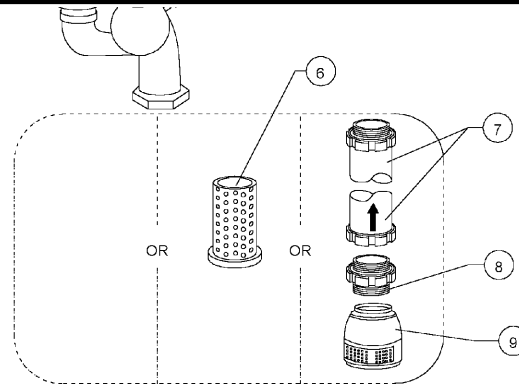
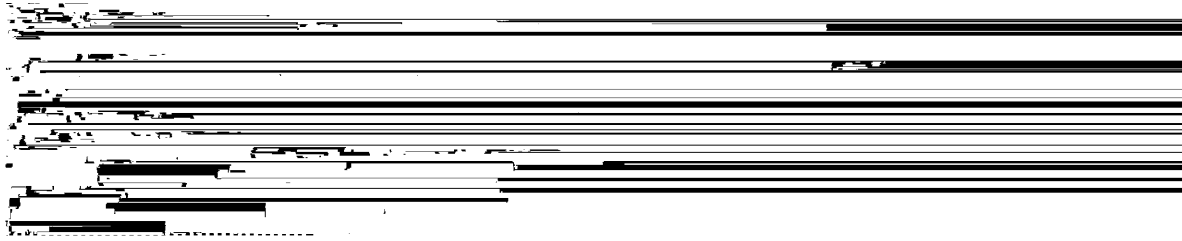
ITEM	EQUIPMENT
1	TRI GATE
2	WYE GATE
3	PERI JET EDUCTORT
4	1-1/2" EDUCTOR
5	S-TYPE EDUCTOR
6	FOOT VALVE WITH STRAINER
7	OVERBOARD DISCHARGE
8	TENDING LINE
9	FOOT VALVE STRAINER (SUB PUMP)
10	REDUCER 3" FEMALE – 4" MALE
11	ADAPTER 4" MALE – 3" MALE
12	ADAPTER 2-1/2" MALE – 1-1/2" MALE
13	ADAPTER 1-1/2" FEMALE – 1-1/2" FEMALE
14	ADAPTER 3" – 2-1/2" DOUBLE FEMALE
15	REDUCER 4" FEMALE – 3" MALE

**DEWATERING EVOLUTION - SKETCH #001**  
**Dewatering Equipment (Sheet 2 of 3)**



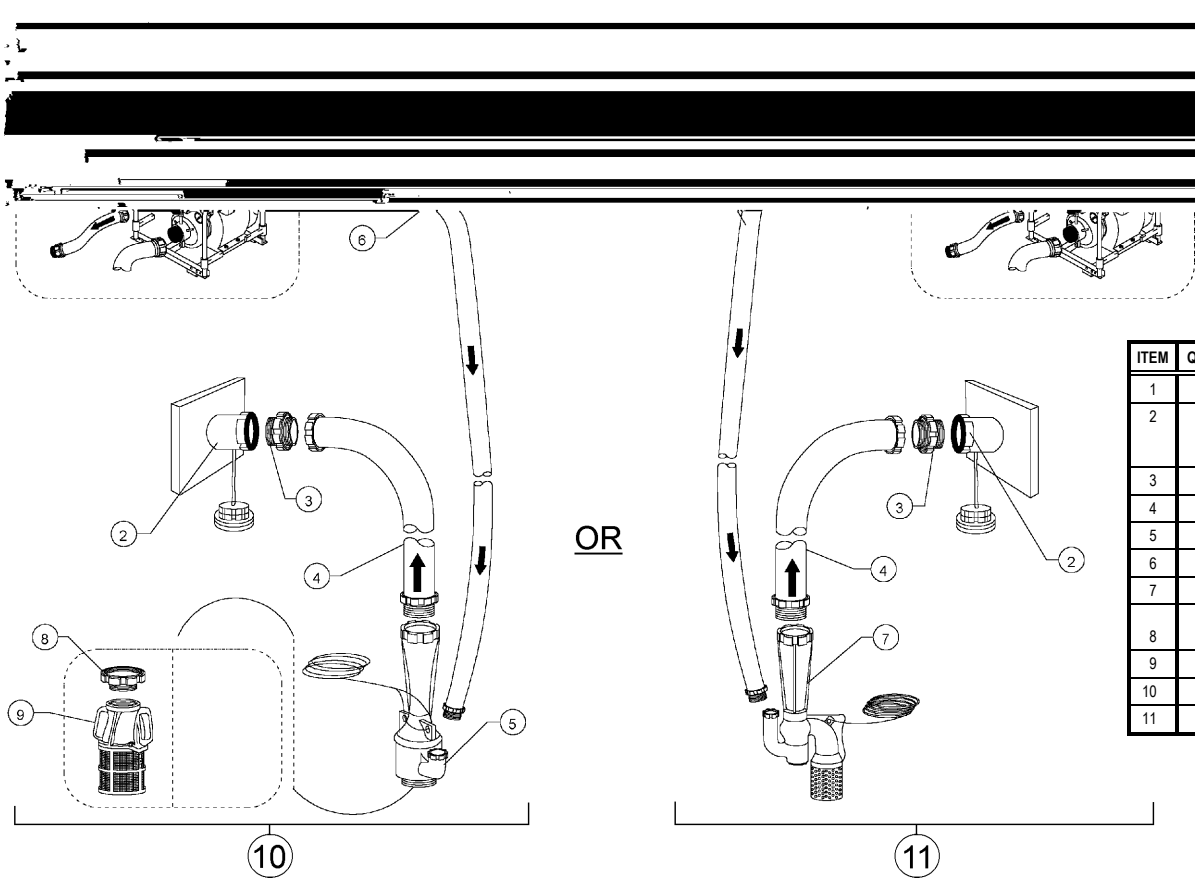
ITEM	EQUIPMENT
1	HOSE 2-1/2" X 50'
2	P-100 EXHAUST HOSE 2" X 10' (2 EACH) WITH FLANGED ADAPTERS
3	HOSE 1-1/2" X 50' OR 1-3/4" X 50'
4	HARD RUBBER HOSE 3" X 10'
5	HARD RUBBER HOSE 2-1/2" X 10'
6	HOSE JUMPER 2-1/2" X 18"
7	HOSE 4" X 50'

**DEWATERING EVOLUTION - SKETCH #001**  
**Dewatering Equipment (Sheet 3 of 3)**



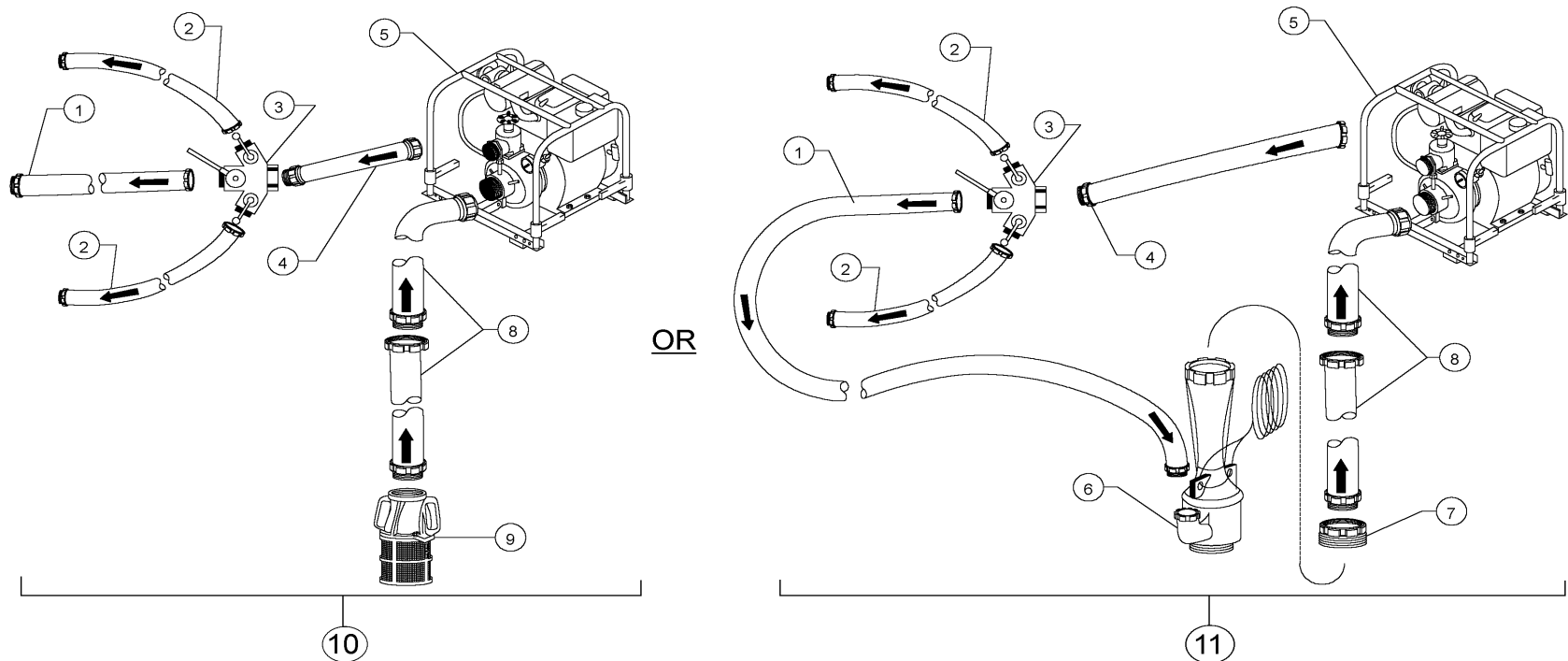
ITEM	QTY	EQUIPMENT
1	1	WATER SOURCE (P-100 OR FIRE PLUG CONNECTED TO TRI GATE OR WYE GATE)
2	1	1-1/2" X 50' FIREHOSE
3	1	2-1/2" X 50' FIREHOSE
4	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE CAP)
5	1	1-1/2" EDUCTOR WITH STRAINER AND HANDLING LINE
6	1	OPTIONAL 2-1/2" STRAINER
7	1	OR 2-1/2" X 10' HARD RUBBER SUCTION HOSE
8	1	ADAPTER (2-1/2" DOUBLE MALE FITTING)
9	1	2-1/2" STRAINER WITH FOOT VALVE

**DEWATERING EVOLUTION - SKETCH #002**  
**Using 1-1/2" Eductor with or without Strainer**



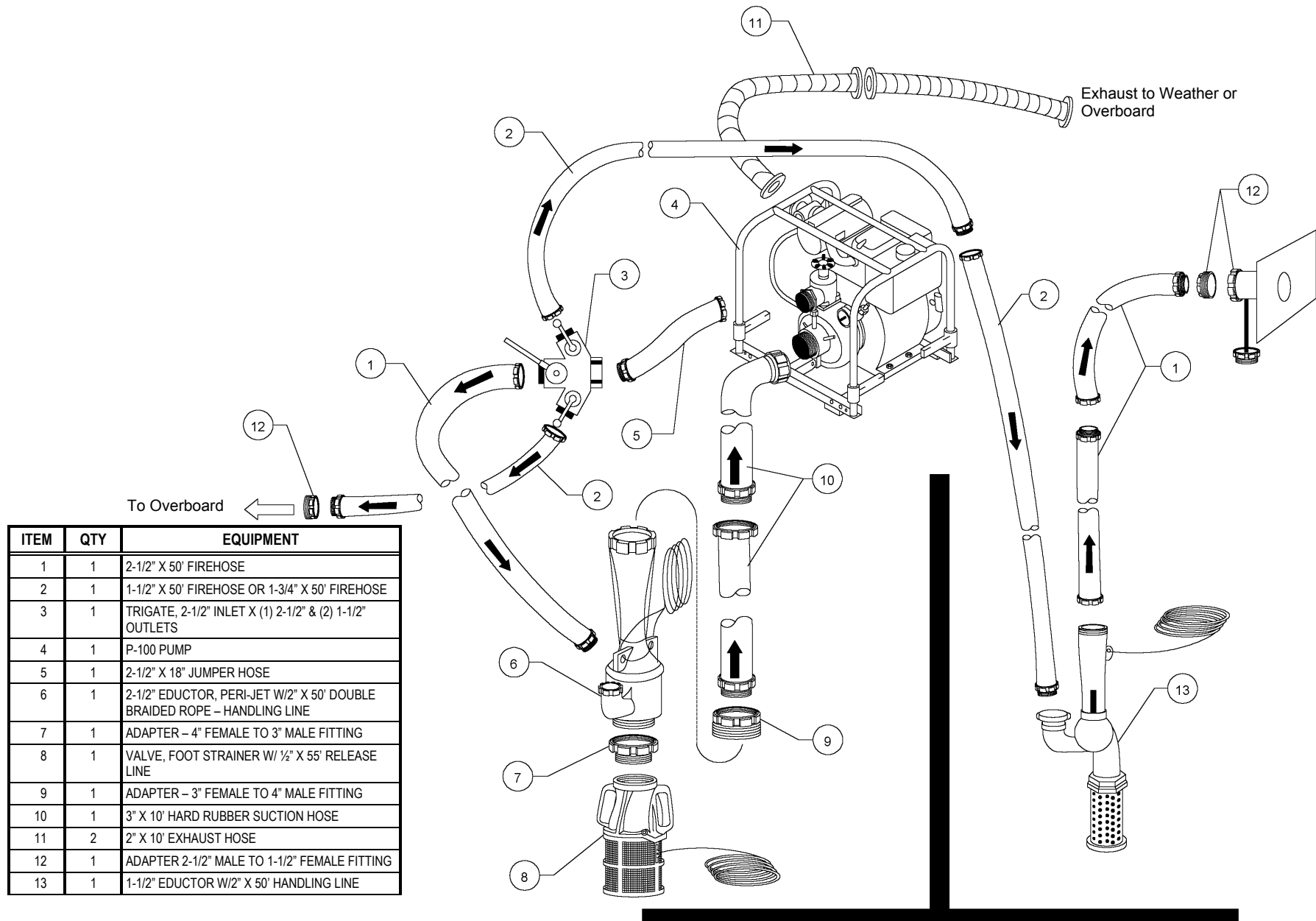
ITEM	QTY	EQUIPMENT
1	1	2-1/2" WATER OUTLET (P-100 PUMP OR FIREPLUG)
2	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE AS UNIT)
3	1	ADAPTER - 4" DOUBLE MALE FITTING
4	1	4" X 50' FIREHOSE
5	1	2-1/2" PERI JET EDUCTOR WITH HANDLING LINE
6	1	2-1/2" FIREHOSE
7	1	2-1/2" S-TYPE EDUCTOR WITH HANDLING LINE
8	1	OPTIONAL ADAPTER - 4" FEMALE TO 3" MALE FITTING
9	1	VALVE, FOOT STRAINER WITH 1/2" X 56' RELEASE LINE
10	1	DEWATERING WITH PERI JET EDUCTOR
11	1	DEWATERING WITH 2-1/2" S-TYPE EDUCTOR

**DEWATERING EVOLUTION - SKETCH #003**  
**Using 2-1/2" Eductor or Peri Jet with or without Foot Valve Actuating from 2-1/2" Fireplug or P-100 Pump**



ITEM	QTY	EQUIPMENT
1	1	2-1/2" X 50' FIREHOSE
2	2	1-1/2" X 50' FIREHOSE OR 1-3/4" X 50' FIREHOSE
3	1	TRIGATE, 2-1/2" INLET X (1) 2-1/2" & (2) 1-1/2" OUTLETS
4	1	2-1/2" X 18" JUMPER HOSE
5	1	P-100 PUMP
6	1	2-1/2" EDUCTOR, PERI JET WITH 2" X 50' HANDLING LINE
7	1	ADAPTER - 3" FEMALE TO 4" MALE FITTING
8	NOTE 1	3" X 10' HARD RUBBER SUCTION HOSE
9	1	FOOT VALVE/STRAINER
10	1	DEWATERING WITH P-100 PUMP
11	1	DEWATERING WITH COMBINATION OF EDUCTOR AND P-100 PUMP
NOTE 1: THREE OR MORE LENGTHS OF SUCTION HOSE REQUIRED FOR LIFTS OVER 20'		

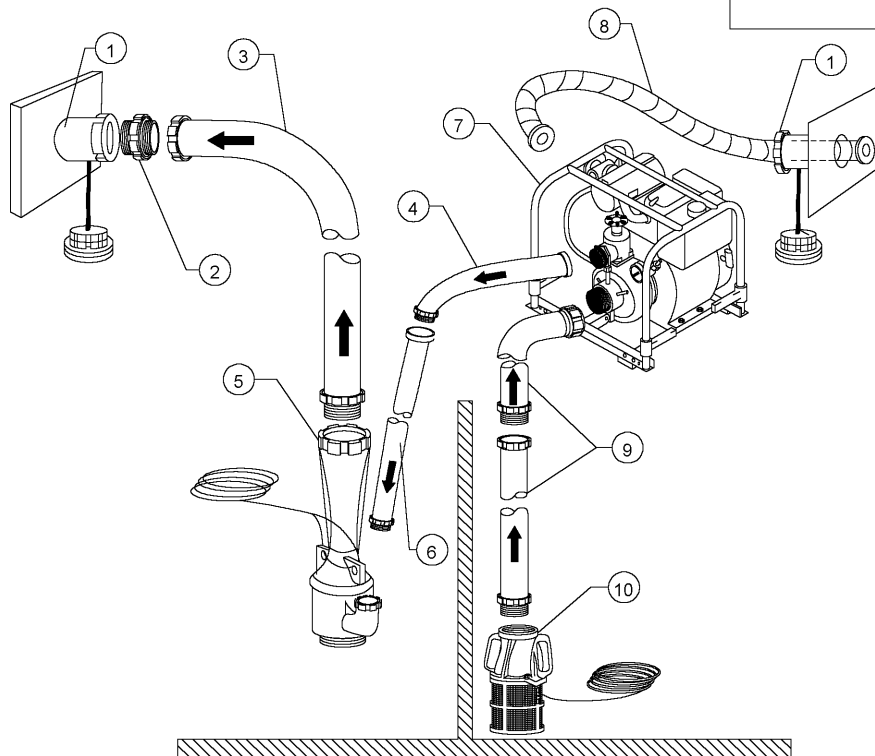
**DEWATERING EVOLUTION - SKETCH #004**  
**Suction Lifts Under 20 Feet**



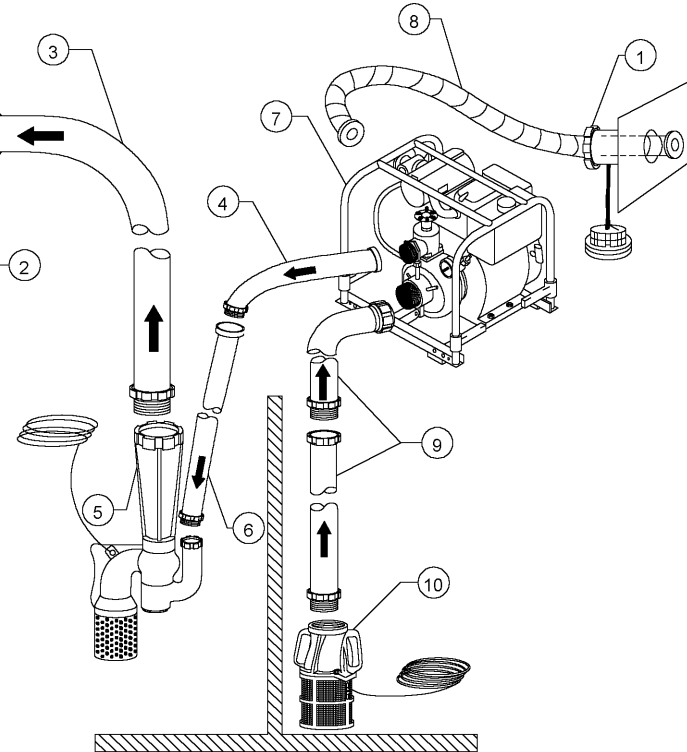
**DEWATERING EVOLUTION - SKETCH #005**  
**Using 1-1/2" Eductor and Peri Jet Eductor for Lifts Over 20 Feet**



ITEM	QTY	EQUIPMENT
1	2	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVED INSTALLED ADAPTER AND CAP AS UNIT)
2	1	4" ADAPTER - DOUBLE MALE FITTING
3	1	4" X 50' FIREHOSE
4	1	2-1/2" X 18' JUMPER HOSE
5	1	2-1/2" EDUCTOR WITH 2" X 50' HANDLING LINE
6	1	2-1/2" FIREHOSE
7	1	P-100 PUMP
8	2	2" X 10' EXHAUST HOSE
9	2	3" X 10' HARD RUBBER SUCTION HOSE
10	1	VALVE, FOOT STRAINER WITH 1/2" X 55" RELEASE LINE

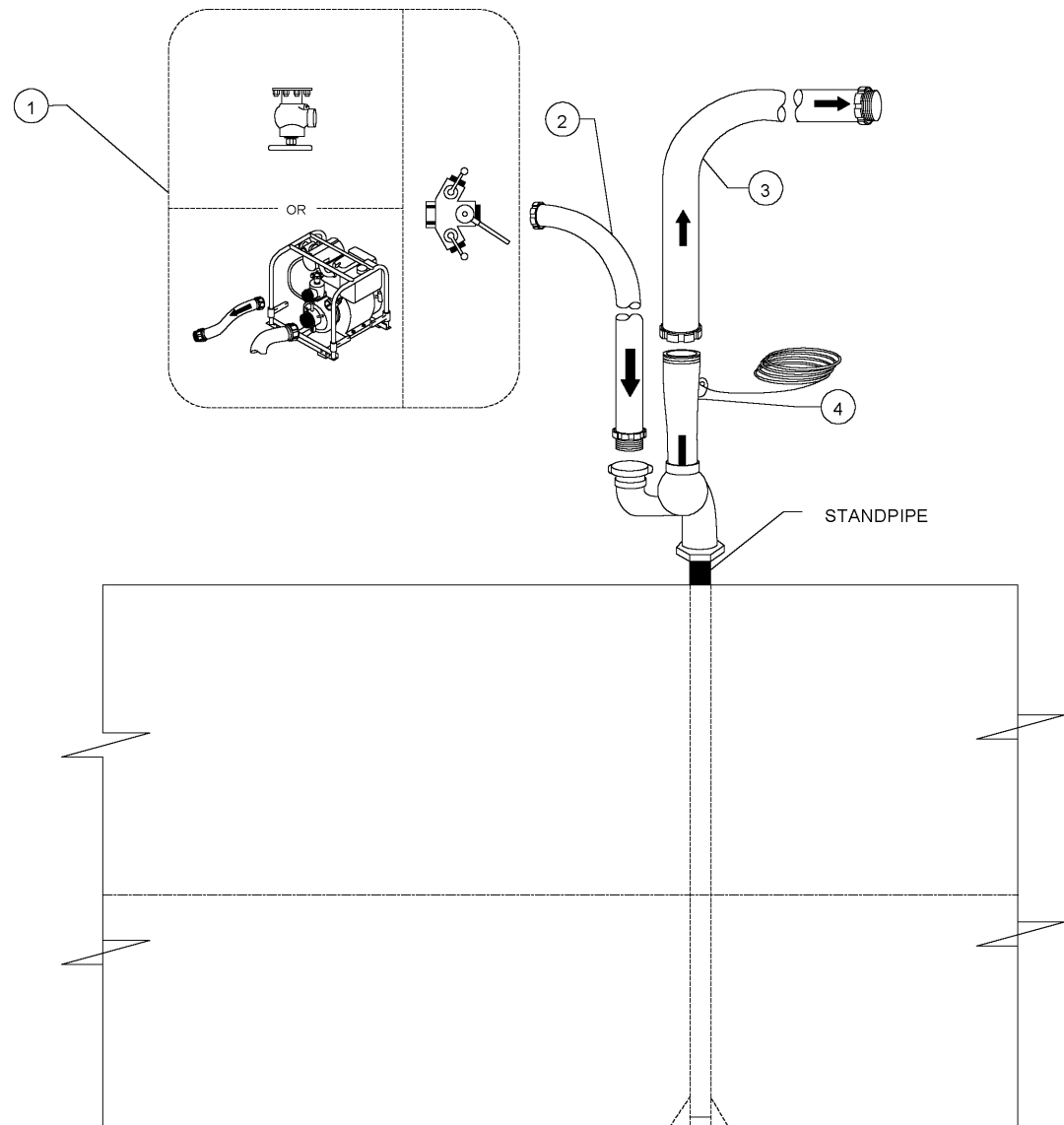


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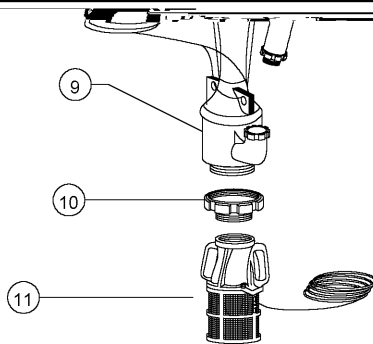
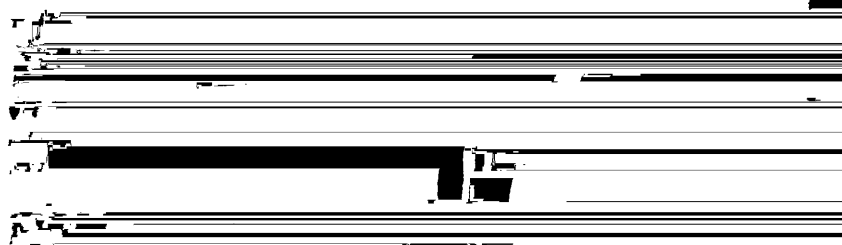
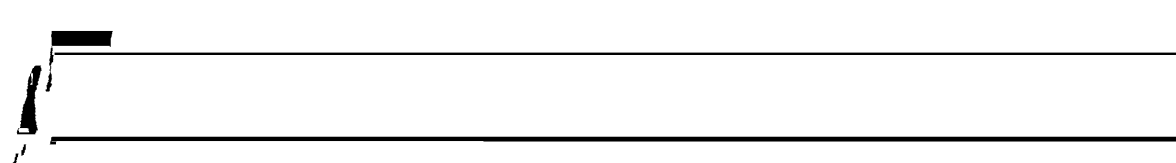


**DEWATERING EVOLUTION - SKETCH #006**  
**Using P-100 Pump and Eductor Pumping Contaminated Space**

ITEM	QTY	EQUIPMENT
1	1	WATER SOURCE (FIREPLUG, P-100 CONNECT TO TRIGATE)
2	1	1-1/2" X 50' FIREHOSE
3	1	2-1/2" X 50' FIREHOSE
4	1	1-1/2" EDUCTOR WITH HANDLING LINE (REMOVE STRAINER FROM 1-1/2" EDUCTOR)

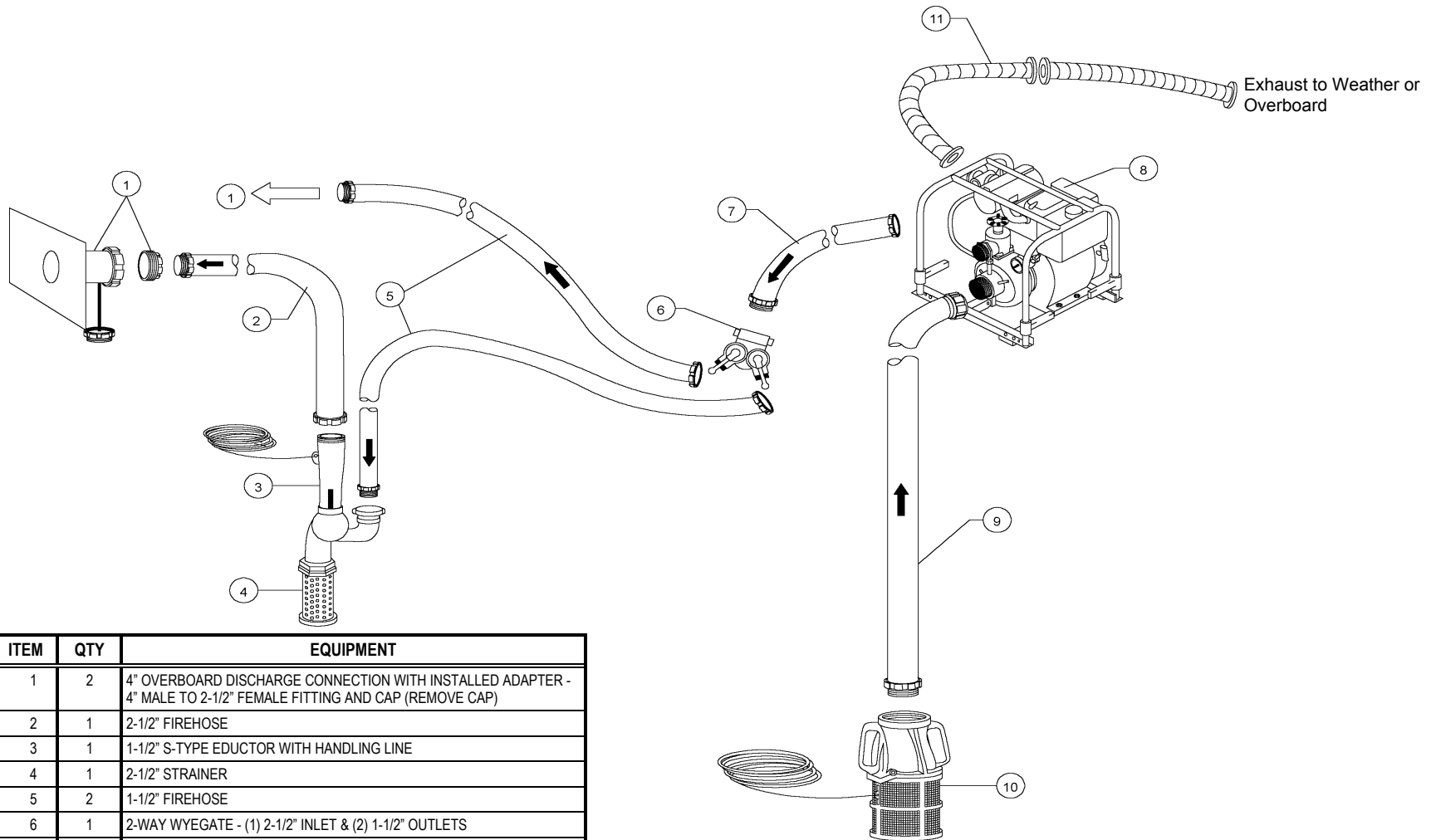


**DEWATERING EVOLUTION - SKETCH #007**  
**Using 1-1/2" Eductor Connected to a Standpipe**



ITEM	QTY	EQUIPMENT
		FIREPLUG, (2) 1-1/2" FIREHOSES AND SPANNER WRENCH
		FITTING
4	1	2-WAY 1-1/2" WYE GATE
5	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE AS UNIT)
6	1	4" ADAPTER - DOUBLE MALE FITTING
7	1	4" X 50' FIREHOSE
8	1	2-1/2" FIREHOSE
9	1	2-1/2" EDUCTOR, PERI-JET WITH 2" X 50' DOUBLE-BRAIDED ROPE - HANDLING LINE
10	1	ADAPTER - 4" FEMALE TO 3" MALE FITTING
11	1	VALVE, FOOT STRAINER WITH 1/2" X 55' RELEASE LINE
12	1	2-1/2" ADAPTER DOUBLE MALE FITTING

**DEWATERING EVOLUTION - SKETCH #008**  
**Using Peri Jet Eductor and 1-1/2" Fireplug**

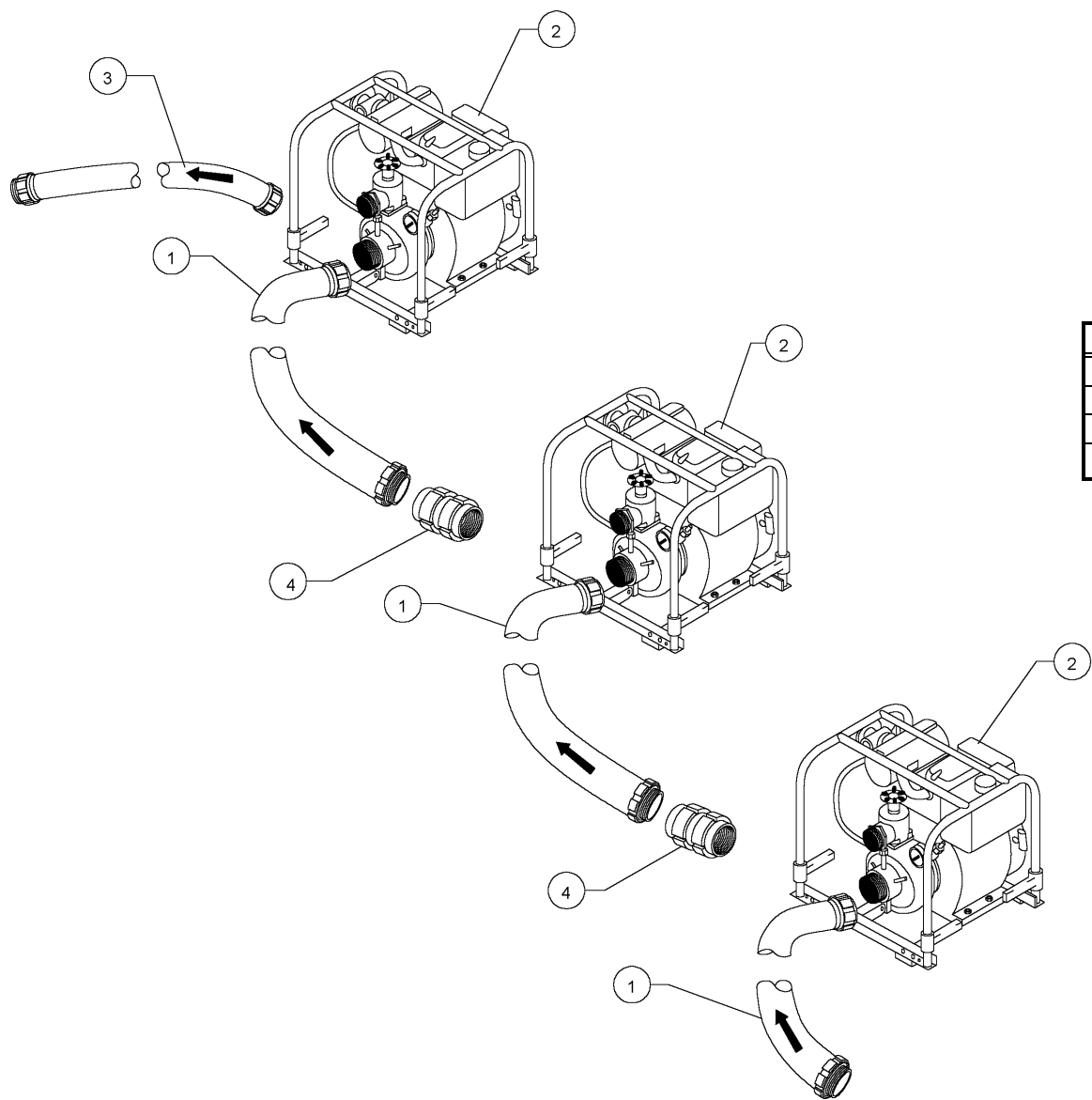


ITEM	QTY	EQUIPMENT
1	2	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE CAP)
2	1	2-1/2" FIREHOSE
3	1	1-1/2" S-TYPE EDUCTOR WITH HANDLING LINE
4	1	2-1/2" STRAINER
5	2	1-1/2" FIREHOSE
6	1	2-WAY WYEGATE - (1) 2-1/2" INLET & (2) 1-1/2" OUTLETS
7	1	2-1/2" X 18' JUMPER DISCHARGE HOSE
8	1	P-100 PUMP
9	1	3" X 10' HARD RUBBER SUCTION HOSE
10	1	3" FOOT VALVE STRAINER WITH 1/2" X 55' RELEASE LINE
11	2	2" X 10' EXHAUST HOSE

**DEWATERING EVOLUTION - SKETCH #009**  
**Using P-100 to Actuate Both the 1-1/2" Eductor and the Foot Valve Strainer for 10 Ft. Suction Lift**

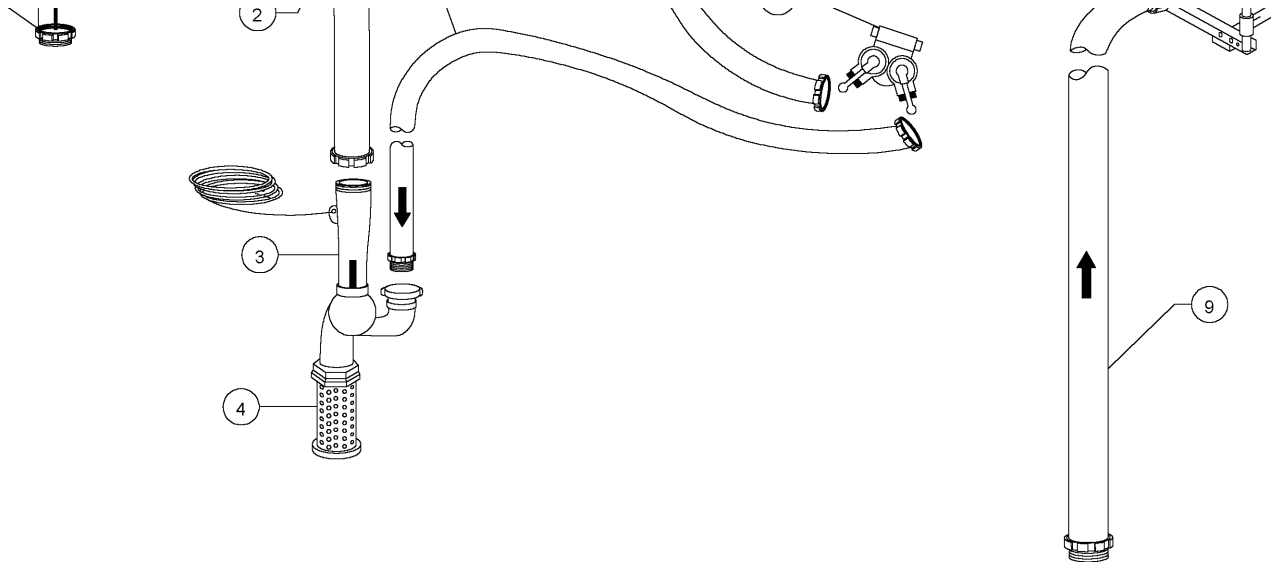




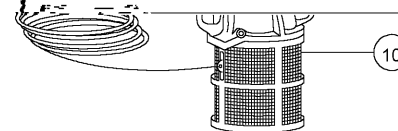


ITEM	QTY	EQUIPMENT
1	3	3" X 10' SUCTION HOSE
2	3	P-100 PUMP
3	1	2-1/2" X 50' FIREHOSE
4	2	ADAPTER - 3" TO 2-1/2" DOUBLE FEMALE

**DEWATERING EVOLUTION - SKETCH #012**  
**20 Foot-Plus Suction Lift Using Three P-100 Pumps in Tandem**

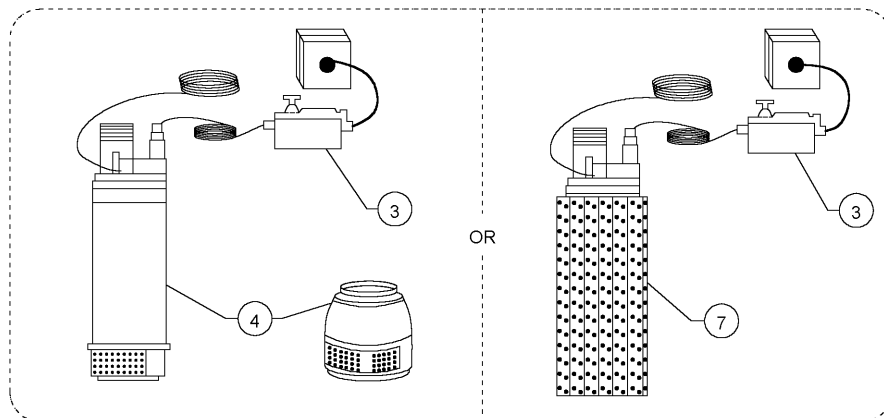
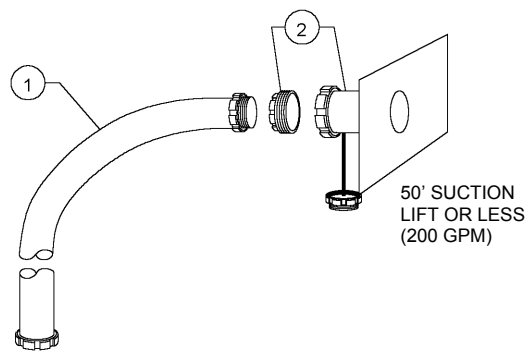


ITEM	QTY	EQUIPMENT
1	2	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE CAP)
2	1	2-1/2" FIREHOSE
3	1	1-1/2" S-TYPE EDUCTOR WITH HANDLING LINE
4	1	2-1/2" STRAINER
5	2 Note 2:	1-1/2" FIREHOSE
6	1	2-WAY WYEGATE - (1) 2-1/2" INLET & (2) 1-1/2" OUTLETS
7	1	2-1/2" X 18' JUMPER HOSE
8	1	P-100 PUMP
9	1 Note 1	3" X 10' HARD RUBBER SUCTION HOSE
10	1	3" FOOT VALVE STRAINER WITH 1/2" X 55' RELEASE LINE
Note 1: A second hose may be used if required up to 20 feet		
Note 2: Second hose to Alternate Overboard Discharge connection		

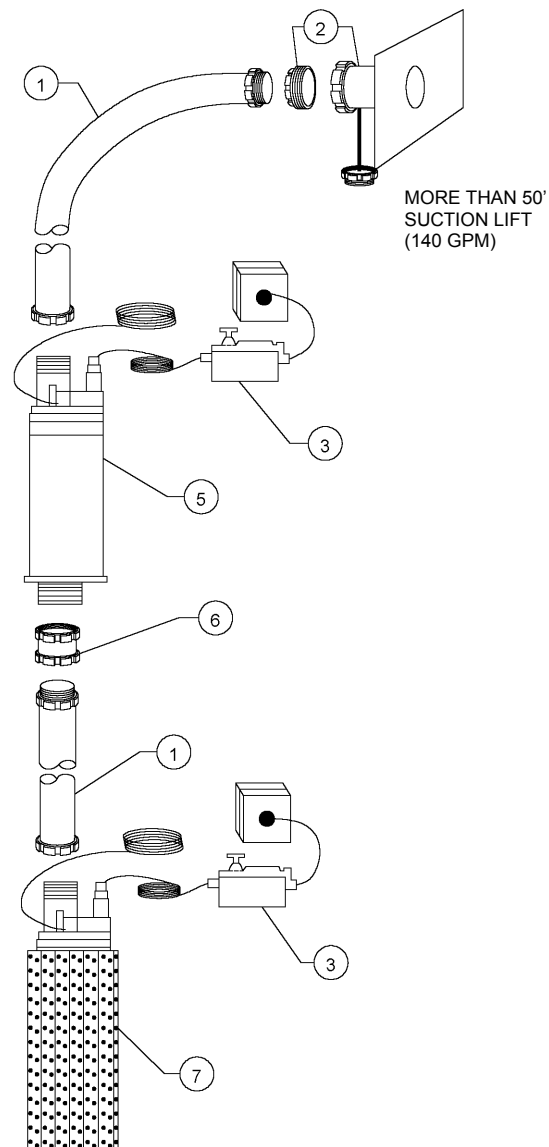


### DEWATERING EVOLUTION - SKETCH #013 Using P-100 Pump and 1-1/2" Eductor

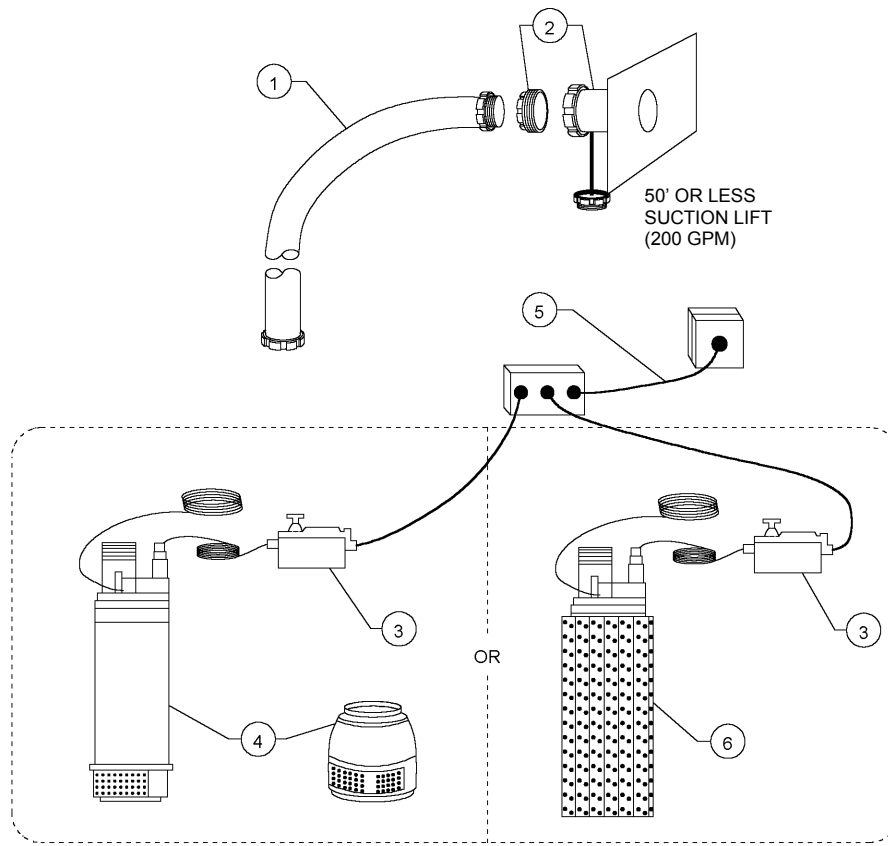




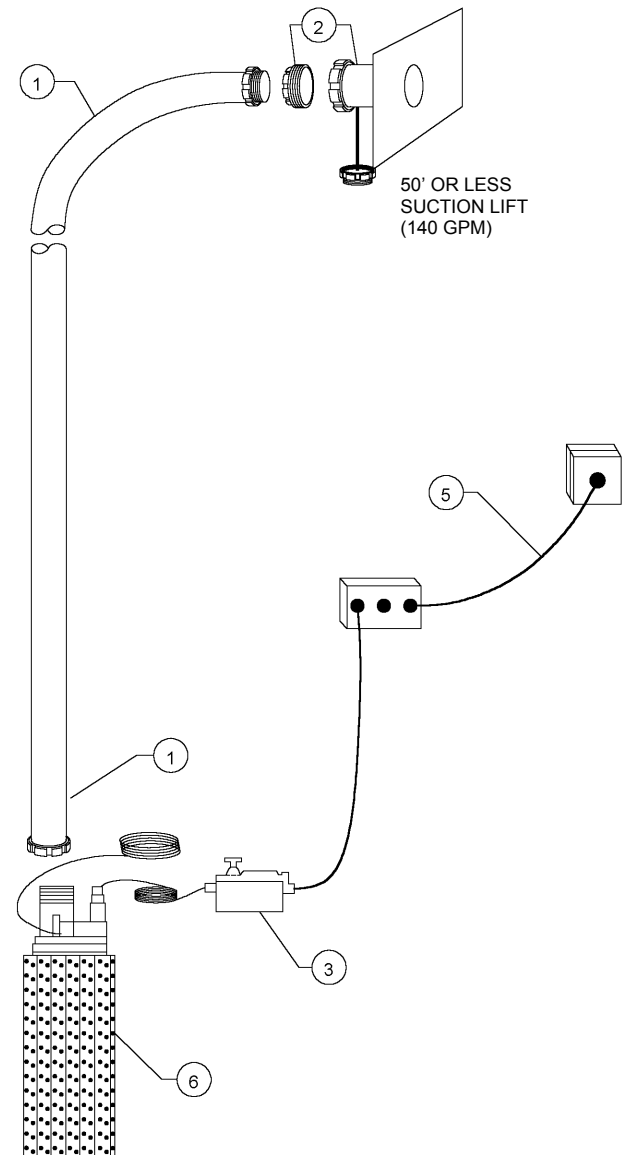
ITEM	QTY	EQUIPMENT
1	1 (2)	2-1/2" FIREHOSE
2	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE CAP ONLY)
3	1 (2)	CONTROL BOX FOR SUB PUMP PLUGGED INTO 440V OUTLET
4	1	ELECTRIC SUB PUMP WITH 2-1/2" FOOT VALVE, STRAINER AND HANDLING LINE
5	1	ELECTRIC SUB PUMP WITH HANDLING LINE
6	1	ADAPTER - 2-1/2" DOUBLE FEMALE FITTING
7	1	ELECTRIC SUB PUMP ENCASED IN STAR STRAINER WITH HANDLING LINE



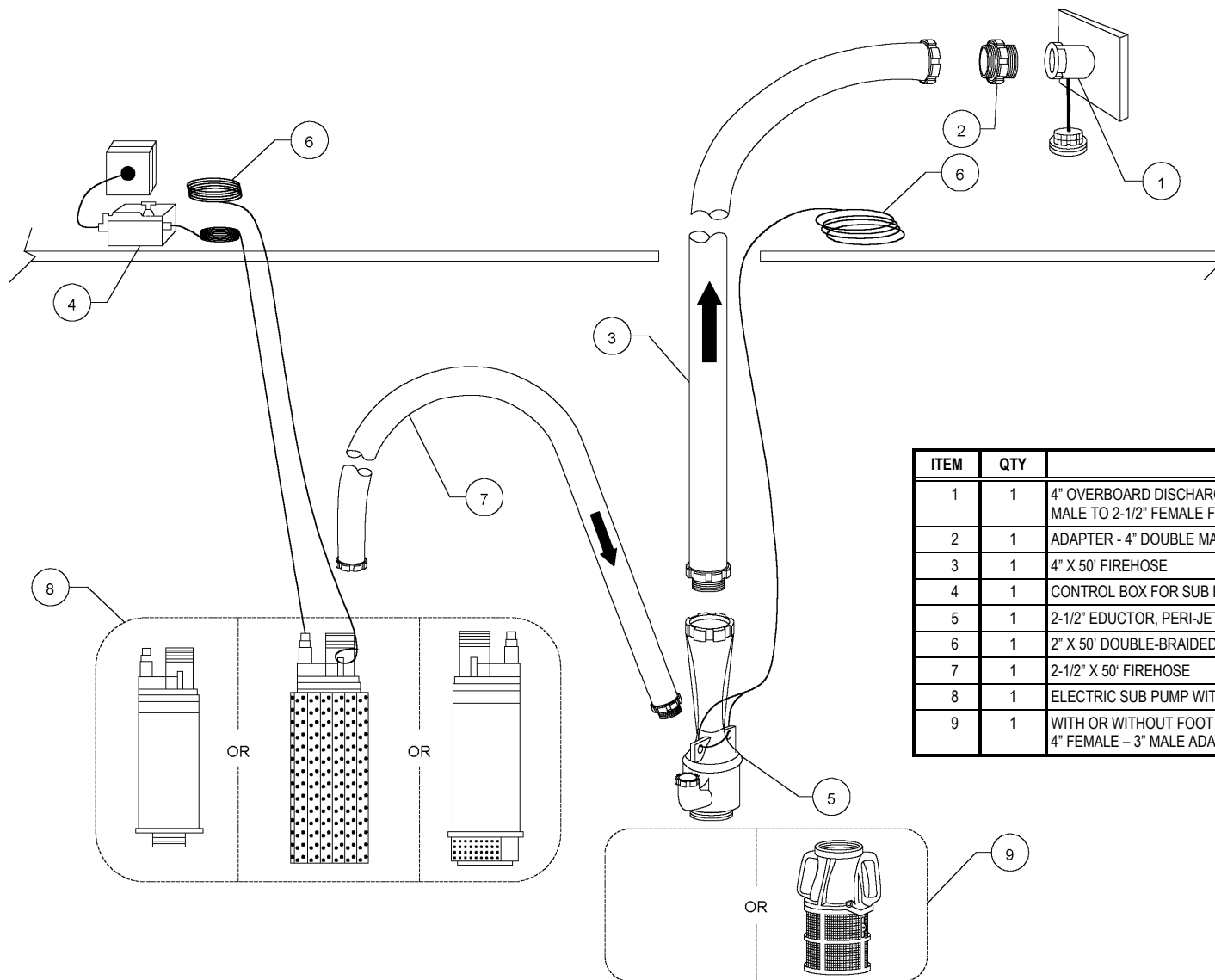
**DEWATERING EVOLUTION - SKETCH #014**  
**Using Submersible Pumps Single or in Tandem- More than 50 Ft. Suction Lift**



ITEM	QTY	EQUIPMENT
1	1(2)	2-1/2" FIREHOSE
2	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE CAP ONLY)
3	1(2)	CONTROL BOX FOR SUB PUMP PLUGGED INTO AN OUTLET BOW AND 440V OUTLET
4	1	ELECTRIC SUB PUMP WITH 2-1/2" FOOT VALVE STRAINER AND HANDLING LINE
5	1	440V EXTENSION CABLE
6	1	ELECTRIC SUB PUMP WITH HANDLING LINE

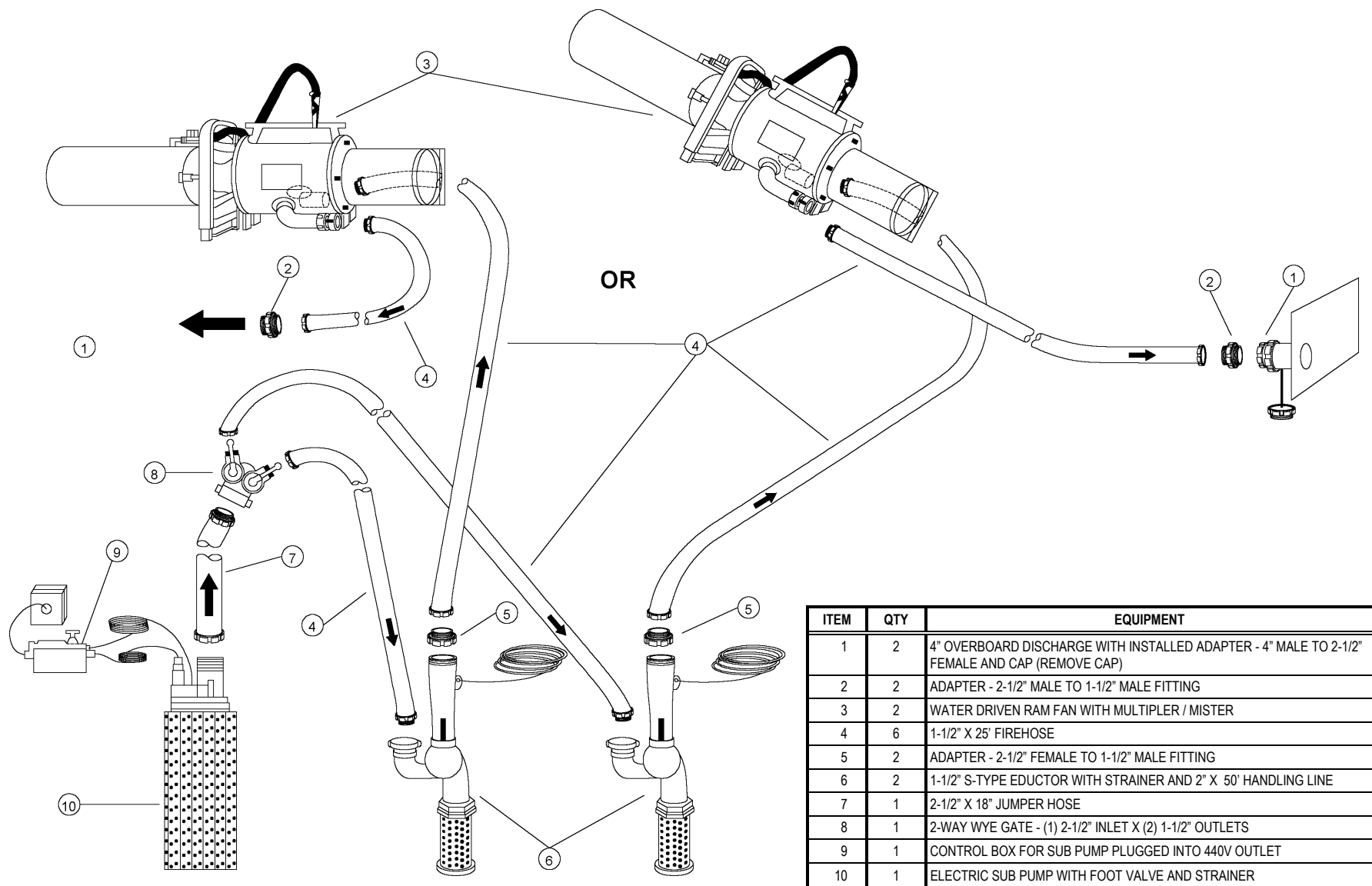


**DEWATERING EVOLUTION - SKETCH #015**  
**Using Submersible Pump - Up to 50 Ft. Suction Lift**

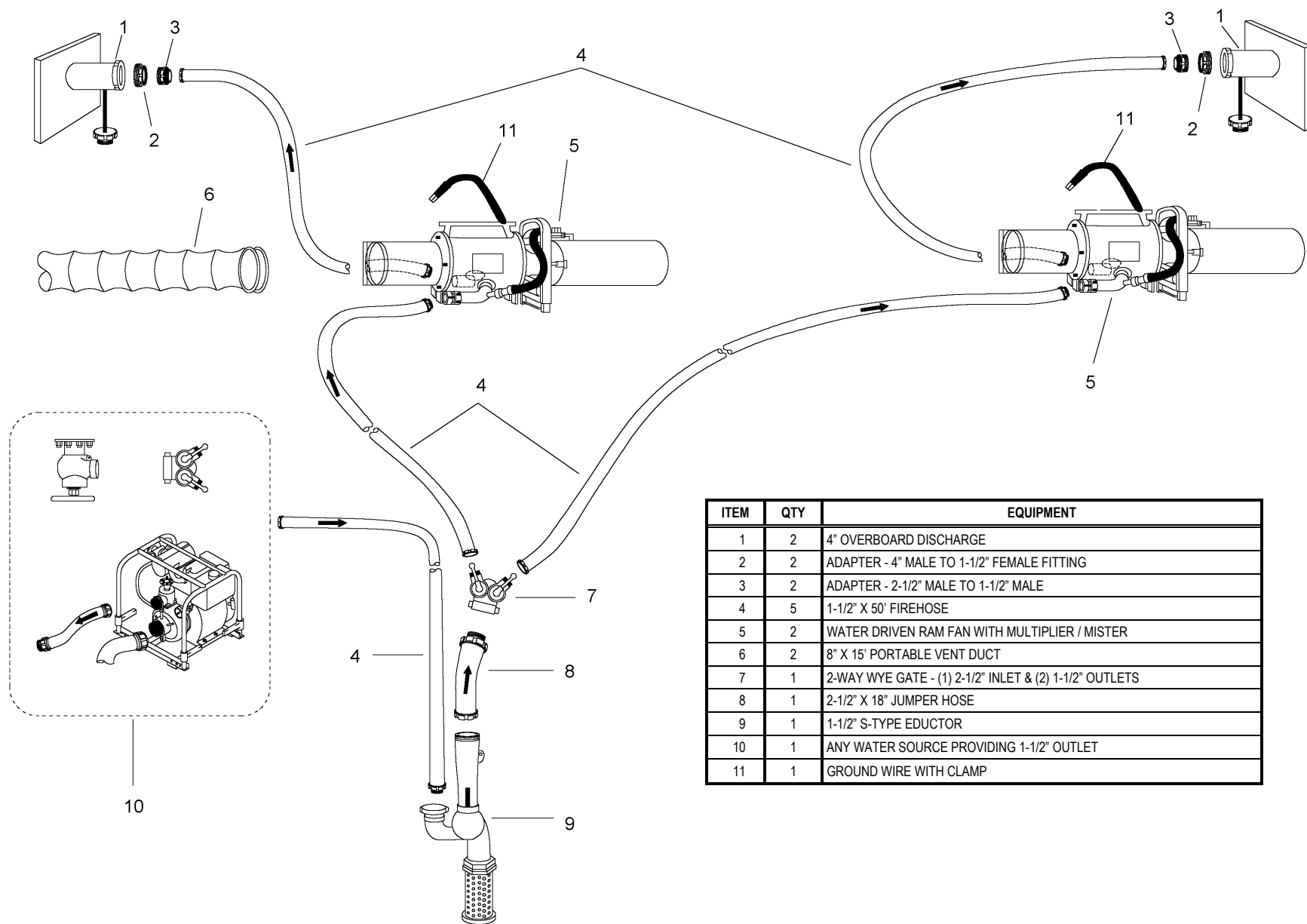


ITEM	QTY	EQUIPMENT
1	1	4" OVERBOARD DISCHARGE CONNECTION WITH INSTALLED ADAPTER - 4" MALE TO 2-1/2" FEMALE FITTING AND CAP (REMOVE AS UNIT)
2	1	ADAPTER - 4" DOUBLE MALE
3	1	4" X 50' FIREHOSE
4	1	CONTROL BOX FOR SUB PUMP PLUGGED INTO 440 VOLT OUTLET
5	1	2-1/2" EDUCTOR, PERI-JET
6	1	2" X 50' DOUBLE-BRAIDED ROPE-HANDLING LINE
7	1	2-1/2" X 50' FIREHOSE
8	1	ELECTRIC SUB PUMP WITH AND WITHOUT FOOT VALVE AND STRAINER
9	1	WITH OR WITHOUT FOOT VALVE STRAINER (OPTIONAL) INSTALLED, USE 4" FEMALE - 3" MALE ADAPTER

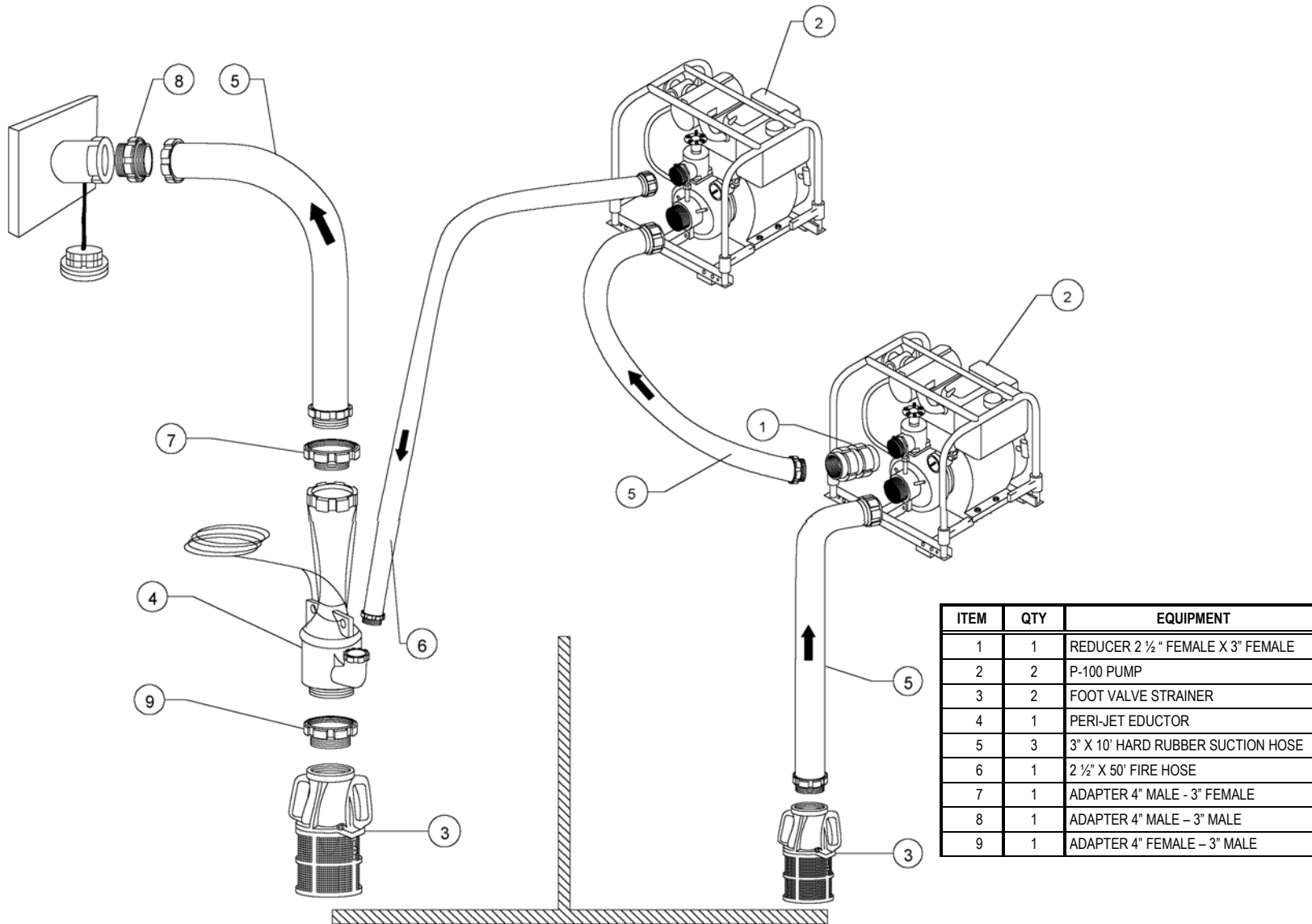
**DEWATERING EVOLUTION - SKETCH #016**  
**Using Submersible Pump to Provide Actuating Water to Peri Jet Eductor**



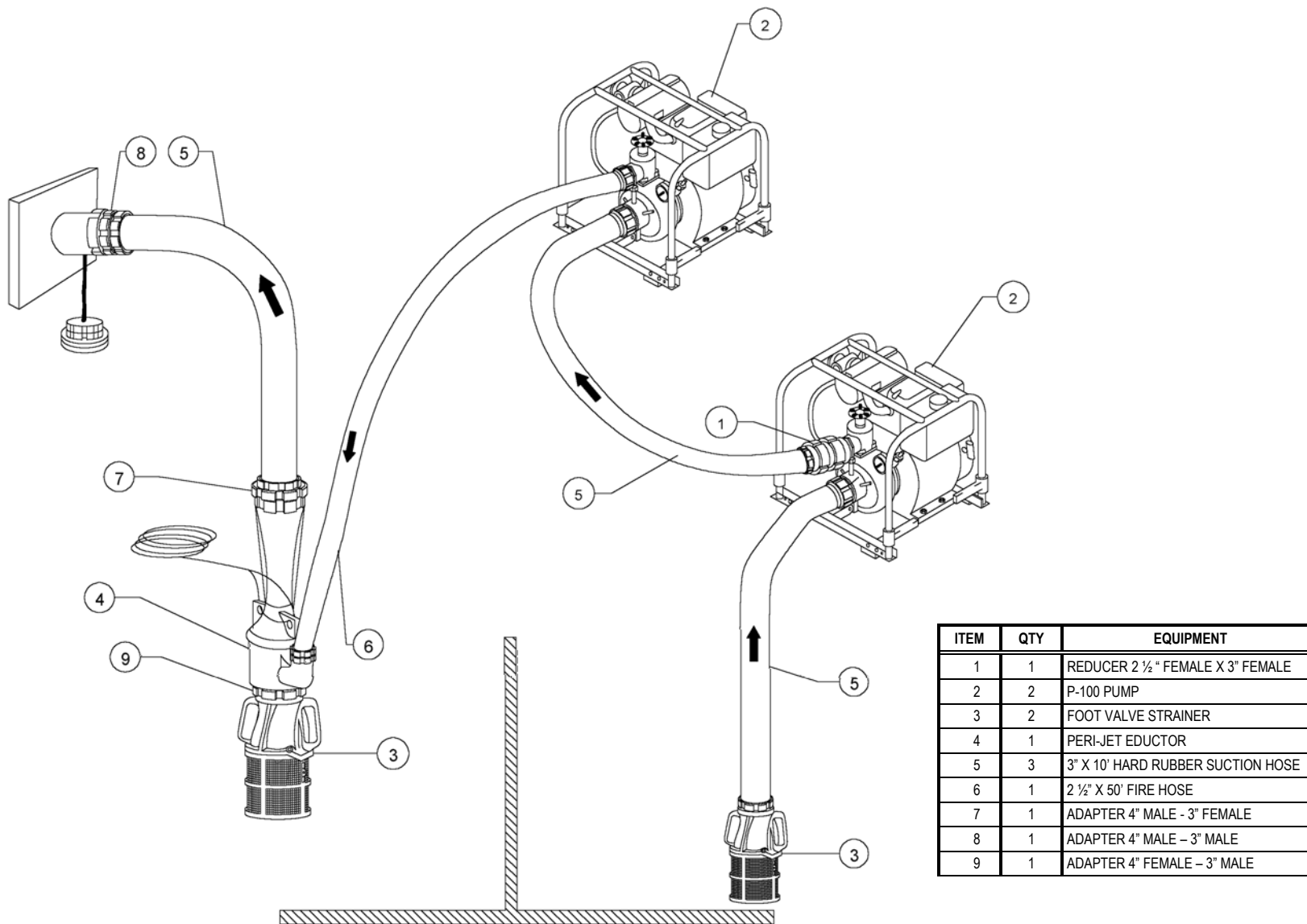
**DEWATERING EVOLUTION - SKETCH #017**  
**Electric Submersible Pump Discharge Actuating One or Two 1-1/2" S-Type Eductors and Corresponding Ram Fans**



**DEWATERING EVOLUTION - SKETCH #018**  
**1-1/2" S-Type Eductor Providing Actuating Water to Two Water Driven Ram Fans for Cooling/Desmoking**



**DEWATERING EVOLUTION - SKETCH #019 (SHEET 1 OF 2)**  
**Dewatering Compartments Using Two P-100 Pumps in Tandem Actuating Eductor in Adjacent Space**



**DEWATERING EVOLUTION - SKETCH #019 (SHEET 2 OF 2)**

**Dewatering Compartments Using Two P-100 Pumps with Connections made in Tandem Actuating Eductor in Adjacent Space**